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Abstract

An electric fluid pump includes an upper housing having a fluid inlet and outlet. An impeller is seated within the upper housing for pumping fluid between the inlet and the outlet. The impeller includes at least one magnet secured thereto. A lower housing mates with the upper housing. The lower housing has an upper wall for closing the upper housing and a shaft extending from the upper wall for rotatably supporting the impeller. A stator is seated within the lower housing and spaced from the impeller by the upper wall. The stator includes a plurality of pillars supporting a winding of coils for producing a magnetic field to energize the magnet and rotate the impeller, and a plurality of top plates covering each of the coils and spaced apart by a predetermined gap for maintaining the magnetic field between the stator and the impeller. An end cap closes the stator within the lower housing.